with a view of improvement of the account and the control of nuclear materials (actual quantity of a cash material, fixation of chronology of transfer of a material, preparation of reports, protection of the information and system administrative functions). The system has the evident interface and is simple in operation for the user - expert in the field of the account of nuclear materials.

This system accustoms responsible persons under the account and the control of nuclear materials on the reactor of WWR-SM at INP AS RU and since 2005 all documents containing the information under the account of nuclear materials and passed in Agency "ASIM" and IAEA will be made out on system AIMAS.

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THE CRITICAL SLAB PROBLEM FOR REFLECTING BOUNDARY CONDITIONS

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The recently developed H-N method is used to solve the critical slab problem for a slab, which is surrounded by a reflector. In the special case for R=0 (the reflection coefficient) the problem reduces to the one under vacuum boundary conditions. It is shown that the method is concise and leads to fast converging numerical results. The presented numerical results are given in tables and are compared with the data available in literature.

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MOTION OF AIR BUBBLES IN STAGNANT WATER CONDITION

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In this study, air bubble motion in stagnant water condition in a vertical pipe is investigated experimentally. For this purpose, a test set-up was designed and constructed. Motions of single bubbles, having different diameters in the range of 3.0-4.8 mm, were recorded by using a monochrome camera, an image capture card and a PC. Recorded video images were processed to analyse bubble motion and to obtain the necessary data. The purpose of the study is to determine the variation of bubble axial velocity and bubble drag coefficient as a function of equivalent bubble diameter and bubble Reynolds number, Re_b. Therefore, detailed information for this range of bubble diameters was obtained. The results have shown good consistency with the previous studies found in the literature.